

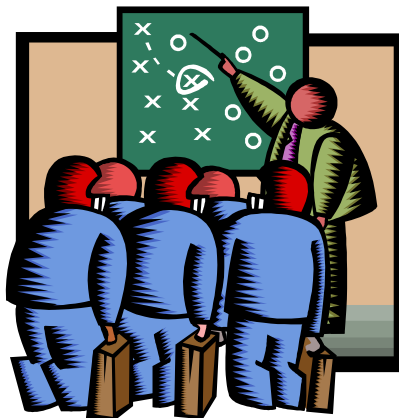
# OSHA EMERGENCY ACTION PLANS

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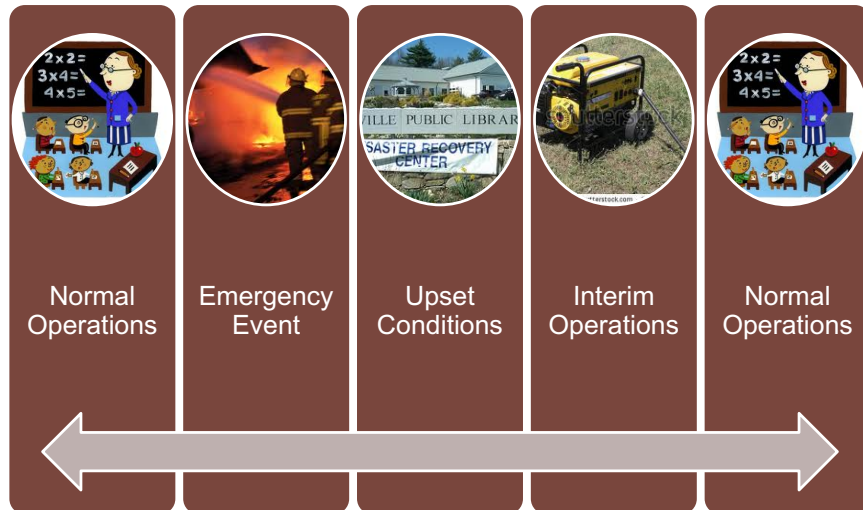
## Emergency Action Plans

- Questions we will discuss:
  - Why do we need one?
  - What are we preparing for?
  - Where do we start?
  - Who is in charge?
  - Who will it affect?
  - When will it end?
  - What is the outcome?
  - How do we prevent the disaster in the first place?



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## Emergency Action Plan Goal



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## WHAT TO PREPARE FOR?

What kind of emergencies are possible?

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## A bad sign



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## Brainstorm Time

- Your Staff is the best resource for ideas
- Be open to new and imaginative ideas
- Getting more input will help ensure cooperation later
- 'Many hands make light work'



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## UTAH EMERGENCIES

- (1) Bad Weather events, including Blizzards, High Winds and Tornados
- (2) Hazardous Material Releases
- (3) Workplace Violence, Civil Disturbances
- (4) Fire – Structure fire, Wildfires
- (5) Flooding, natural and manmade
- (6) The 'big one' Earthquake

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## Bad Weather Events

- An annual event somewhere in the state – BE PREPARED!
  - High Winds – take out trees, signs, power lines, vehicles
  - Winter Blizzard – power outages, freezing temps, difficulty getting from one place to another
  - Summer Thunder Storms – Hail, Tornados, flash flooding
  - Extremely low temperatures – Winter of 1992 January & February temps in -10's for weeks
  - Extremely hot temperatures – This year summer heat never seemed to end, Summer of 1994 tied record (20) for number of days over 100°



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## Hazardous Materials Releases

- Sometimes related to bad weather events, such as high winds turning over tankers
- Be aware of what is going through your area
  - All responding agencies should have Emergency Response Guide (ERG) or equivalent
  - Sit along your main street sometime and monitor what passes through, with your ERG. It can be frightening!
- Have a plan and follow it!



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## Workplace Violence, Civil Disturbances

- Unfortunately, Workplace Violence is becoming more routine
- Security at work is now almost a requirement
  - Control of access
  - Authorized person badges
  - Door keypad combinations
- Trained personnel
  - Office design – furniture placement allows escape
  - Warning Signs
  - Watch lists
- Emergency Action Plans for violence
  - Key Word or Phrase



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## Fire – Structural & Wildfire



- Common Causes of Building fires from within
  - Electrical – Old system, overloaded, arc flash, shorts, bad equipment
  - Combustible materials –
    - stored in excess, spontaneous combustion
    - Blocking sprinkler heads, no storage within 18 inches of ceiling
  - Flammable materials – improperly stored
  - Heat producing equipment left on – Coffee pot, space heater, candle, etc.
- Wildfire, often caused by dry thunderstorm, can cause fire from outside the building
  - Keep a buffer zone around the building
  - Consider noncombustible roofing materials

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## Flooding

- May be related to immediate weather but also may be related to heavy snows and late melting from the mountains.
  - Spring of 1983, 2011
- Breaks in water or sewer pipes can also cause flooding
  - Becoming common in boring operations
- Plan ahead when building and avoid flood plains and mud flows, even inactive ones
  - Look at each building for flood potential, act accordingly
  - Keep materials on-hand, such as sand bags
- Contact list for people who control water and sewer



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## “The Big One” Earthquake



- May not happen in our lifetime
- May happen tomorrow
- Salt Lake Valley Segment of Wasatch Fault is over-due for adjustment. Average years between large movement is 300 years. We are working on 400 years.
  - Last adjustment was 10 ft. drop of valley floor
  - Colorado, Utah and Nevada mountains were formed by the Pacific Plate subduction under the North American Plate, caused mountains or wrinkles, similar to crinkling up paper
  - The land is now rebounding
  - “An acre of land is created between the Wasatch and Sierra Nevada ranges every year” Frank DeCorteen, U of U Geology Department

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OSHA  
29 CFR 1910.38  
WHO DOES THIS APPLY  
TO?

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Emergency Action Plans

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## Application (1910.38(a))

- “An employer must have an emergency action plan whenever an OSHA standard in this part requires one. The requirements in this section apply to each such emergency action plan.”
- The wording is nearly identical for Fire Prevention Plans (1910.39(a))
- When does OSHA require these?
  - The only standard that actually requires these is the Process Safety Management (PSM) standard - 29 CFR 1910.119

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## Who should have Emergency Action Plans & Fire Prevention Plans?

- **EVERYONE!**
  - Individuals – families – their workplaces, private and public – schools – health care institutions – government
- **No one is exempt from disasters**
- **How you react in a disaster can mean the difference between living and dying**

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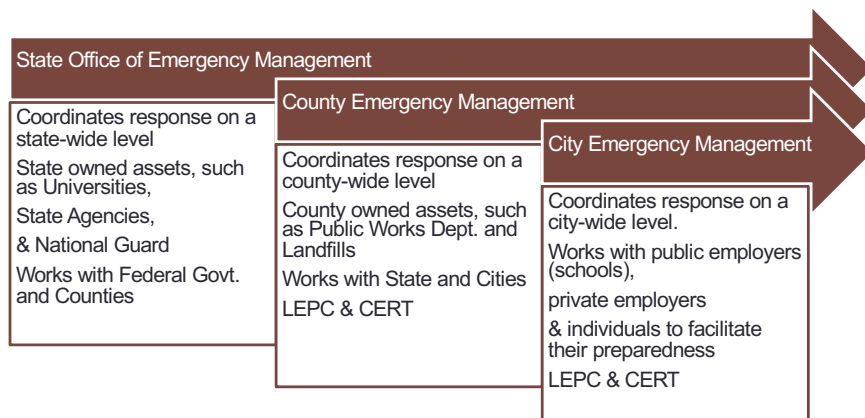


# HOW SHOULD COUNTIES AND CITIES GO ABOUT PREPARING THEIR EMERGENCY ACTION PLANS?

Step-by-step

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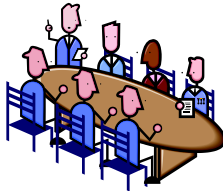
Realize you are part of a community.  
There are several levels of planning.



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## LEPC (Local Emergency Planning Committee)

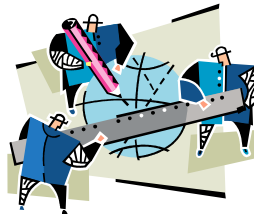
- Cultivate an effective LEPC in your area.
  - LEPC's include members from government, interested citizens and local businesses.
  - They can be organized on a per city basis, or county-wide.
  - Whatever form of LEPC works for your situation, use it.
  - Most LEPC's hold monthly or quarterly meetings and stage drills.
- Any Emergency Action Plans should fit into the plans that have gone before with LEPC's or other agencies in your community.



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## LEPC's Continued

- **DO NOT WASTE EFFORT REINVENTING SOMETHING THAT IS ALREADY DONE OR AT LEAST STARTED!**
  - Research any existing plan/s
  - Update and revise rather than throwing out what has gone before
- Do not let local politics hijack the process
- Circumvent Silos or Territories
- Enlist all agencies
- Work together for the common goal
- Exercise, Exercise, Exercise



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## Community Emergency Response Training (CERT)

- Commonly coordinated through fire departments
- Training can be useful to any company, community group or individuals
- Periodic review after initial training
- Can be used as integral part of Emergency Response Plan



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## WHAT ARE THE ESSENTIAL PARTS OF AN EMERGENCY ACTION PLAN?

See Nonmandatory Appendix to 29 CFR1910 Subpart E

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# EMERGENCY ACTION PLAN ELEMENTS

- (1) Reporting
- (2) Emergency Evacuation
- (3) Shut-down Procedures
- (4) Accounting for People
- (5) Rescue Operations and Treating Wounded
- (6) Contact Person



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## Minimum Elements of an Emergency Action Plan

- **(1) Reporting**
- How is the notification of an emergency going to get to those who need to know?
  - Alarms, phone trees, automated dial systems, loud speakers, phone intercom, radio
  - Make sure it is straight forward and will work
  - Ensure everyone gets the message
- Practice! At least annually but twice a year or quarterly is better



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## Minimum Elements Continued

- **(2) Emergency Evacuation**
- Depends on what type of occupancy
- Is your place a public building? Plan for

People who are not familiar with the building

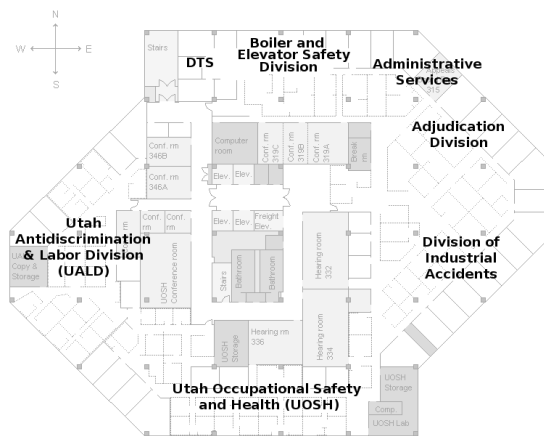
- Post floor plans conspicuously
- Make sure exits remain clear and open
- Each area should have two exits available
- Practice! At least annually but twice a year or quarterly is better



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## (2) Emergency Evacuation

- Utah Labor Commission Floor Plan
- 3<sup>rd</sup> floor of 6 floors + 2 below ground parking garages
- Assigned to stairs



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## Minimum Elements Continued

- **(3) Shut-down procedures**
- Critical processes
  - Who will stay behind while the rest leave?
  - What Critical Processes do you have that need time to shut down?
  - Where are they located and how it is done?
  - What tools are needed?
- Practice! At least annually but twice a year or quarterly is better



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## Minimum Elements Continued

- **(4) Accounting for people**
- Did you have an accurate list of where people were before the emergency?
  - Who is in charge of grabbing the list on the way out?
  - Where does everyone meet for a head count?
  - How do you notify workers away from the building?
  - Should those workers come back or stay away?
- Practice! At least annually but twice a year or quarterly is better



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## (4) Accounting for People



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## Minimum Elements Continued



- (5) Rescue operations and treating wounded
- **Do not endanger others if it is not safe to go back in**
- Do you have the required PPE or expertise?
  - Emergency First Aid Training for staff
  - CERT (Community Emergency Response Training) is useful for all types of groups
  - Depending on what the emergency is, there may not be any normal emergency resources available, you may need to be self-sufficient
  - Plan ahead, be prepared individually and as an organization
  - 72 hr. kits at work
- Practice! At least annually

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## Rescue Ops Continued

- Rescue is the period from when the event happens to when people can resume normal operations or go home
  - This may require extended time of sheltering in place or away from home
  - Employers should encourage their employees to be personally prepared for such an event. Have employees consider their own circumstances
  - Suggested Emergency 72 hour kit lists are available many places, remember to customize for your area and individual needs
- How likely is it that they will be able to go home after an emergency event?
- [www.ready.gov](http://www.ready.gov)



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## Basic Elements of Survival

- **Water**
  - People can survive only a few days without water
  - If you have nothing else in your emergency supplies, choose potable water
- **Food**
  - People can survive quite a while without food, if they have water
  - BUT – Would you be able to do anything? Would you be comfortable? Would others revert to violence to get food?
- **Shelter**
  - Protection from the elements, especially in winter, is essential.
  - Hypothermia and Hyperthermia have killed many people in disasters.
- **Heat**
  - Not just for maintaining body temperature - Cooking, Cleaning

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## Basic Disaster Supply List:

[www.ready.gov](http://www.ready.gov)

- [Water](#), one gallon of water per person per day for at least three days, for drinking and sanitation
- [Food](#), at least a three-day supply of non-perishable food
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Flashlight and extra batteries
- First aid kit
- Whistle to signal for help
- Dust mask to help filter contaminated air and plastic sheeting and duct tape to [shelter-in-place](#)
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Wrench or pliers to [turn off utilities](#)
- Manual can opener for food
- Local maps
- Cell phone with chargers, inverter or solar charger

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## Additional Items: [www.ready.gov](http://www.ready.gov)

- Once you have gathered the supplies for a basic emergency kit, you may want to consider adding the following items:
  - [Prescription medications](#) and glasses
  - Infant formula and diapers
  - Pet food and extra water for your pet
  - Cash or traveler's checks and change
  - Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container. You can use the [Emergency Financial First Aid Kit \(EFFAK\)](#) (PDF - 977Kb) developed by Operation Hope, FEMA and Citizen Corps to help you organize your information.
  - Emergency reference material such as a first aid book or free information from this web site. (See [Publications](#))
  - Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
  - Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
  - Household chlorine bleach and medicine dropper – When diluted, nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
  - Fire extinguisher
  - Matches in a waterproof container
  - Feminine supplies and personal hygiene items
  - Mess kits, paper cups, plates, paper towels and plastic utensils
  - Paper and pencil
  - Books, games, puzzles or other activities for children

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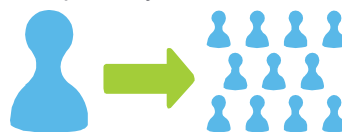
## Rescue Ops Continued

- Employers should have some supplies available
  - The days of fall-out shelters are gone but these were a good idea for emergency preparedness in public buildings
  - Rotate supplies
- Clean Water is critical – 1 gallon/person/day
  - Sanitation will become critical in a disaster
  - Susceptible populations can quickly contract Cholera and other sanitation-related diseases
- Consider that emergencies happen at any time, day, night, summer, winter
- In Utah, heat and shelter may be the difference between survival and death

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## Minimum Elements Continued

- **(6) Contact person**
- Who is in charge of the Emergency Action Plan Implementation for your Organization?
  - This person needs to be available and usually at the site
  - Appoint a secondary and tertiary person, in case someone is on vacation
- The plan should be able to function even if the primary contact person is not available
- Practice! At least annually but twice a year or quarterly is better



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# EMERGENCY ACTION PLAN TRAINING

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- (1) Wardens
- (2) Other Employees
- (3) Handicapped
- (4) Accounting for People

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## Wardens

- Wardens are volunteer or appointed staff who are capable of checking all rooms to make sure their area is cleared, before leaving themselves.
  - Wardens are usually assigned 1/20 employees
  - Wardens often have the list of their employees that can be later correlated at the meeting place
  - Warden can have special high-visibility vest and hard hat
  - Warden may carry special tools assigned
    - Radio
    - Flashlight
    - Extra batteries
    - First aid supplies
- Warden quickly checks their area, closing doors when possible and may help handicapped individuals or assign another employee to do this.



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## Other Employees



- All employees should be trained to know what exit routes are available from whatever area they are in.
  - At least two exits should be available from anywhere in the building.
- All employees should know where the designated meeting place for their area is and **go there no matter what.**
  - Do not go home until released.
  - If an employee does not show up at the designated meeting place, others may risk their lives going into the building looking for them.
  - Other employees, besides the Warden, may have specialty assigned jobs.
- Regular training drills reinforce training and help quick, orderly evacuation.

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## Handicapped

- Identify any employees in your organization that will need help evacuating the building
- If you are open to the public, you may need to make provisions for handicapped public that are in the building when the event occurs
- Wheel chair or Evacutrac ©
- Train on how to use any equipment



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## Accounting for People

- You Wardens should have lists of employees who were in the building
- What about the public?
- Do you have a sign-in/out sheet?
- Employees can direct public as they evacuate the building and account for them



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## FIRE PREVENTION HOUSEKEEPING

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- (1) General
- (2) Flammable Liquids and Gasses
- (3) Combustible "Fire Loading"
- (4) Electrical Hazards
- (5) Hot Work

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## General Housekeeping



- Keep your workplace clean and uncluttered
- Besides being a fire hazard, materials and debris can be trip and fall hazards, and harbor pests
- Minimize storage when possible

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## Flammable Liquids & Gasses

- Volatile substances can hid in unsuspected places, such as cleaners and correction fluid
- Never store flammable liquids, such as gasoline, in an office setting
- Always place flammables inside a flammables cabinet if they must be stored in a building.



- Never store Propane in a building
- Other compressed gasses should be handled with care, separating fuel gasses from oxygen

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## Combustible “Fire Loading”



- “Fire Loading” is a term used by fire departments and insurance companies which quantifies the amount of combustible materials, such as paper and wood, are in an establishment
- Higher Fire Loading means more to burn and harder to contain a fire once it gets going
- Reduce Fire Loading when possible
  - Only keep materials that are required, discard old ones
  - Install shelves and closed file cabinets to contain materials
  - Discard unused materials, Don't be a pack rat

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## Electrical Hazards

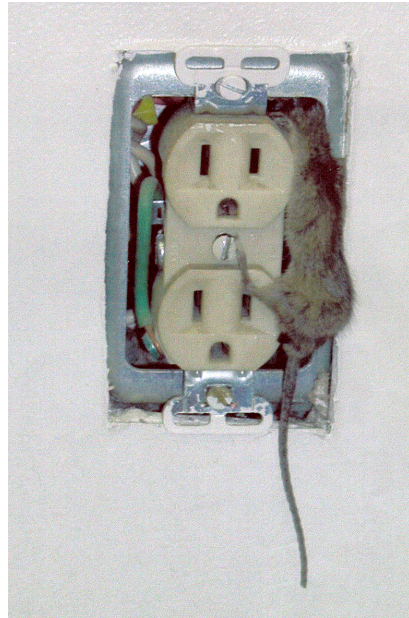


- Resistance = Heat = Fire
  - Why do they tell you not to run a cord under the rug?
- Install GFCI protection
- Do not use any outlet if there is scorching around the outlet
- Use only UL or other approved appliances
- Extension cords – 90 day limit
  - Do not break off ground prongs
  - Never staple extension cord to wall
  - Extension cords cannot be used through doorways, wall holes or in areas where vehicles will be driving over them

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## Electrical Hazards

- Maintain Electrical Integrity
  - Replace all cover plates
  - Close breaker box doors
  - Fill any unused slots in breaker box
- Foreign objects can cause fire
- Duct Tape and Electrical Tape are NOT acceptable substitutes for covers!



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## Hot Work

- Have a hot work permit program in place with a fire watch
- Fires can happen hours after the work is done
- See examples



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# MAINTENANCE OF EQUIPMENT

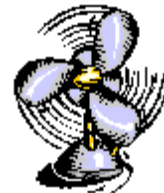
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- (1) Building Service Equipment
- (2) Fire Extinguishers & Fire Fighting Equipment
- (3) Review and Update

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## Building Service Equipment

- Keep the Heating, Ventilation, & Air Conditioning (HVAC) equipment properly maintained
  - Prevent fires
  - Maintain healthy environment in building (Legionnaires Disease, mold)
- Some emergencies may require turning off HVAC and sheltering in place



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## Fire Extinguishers and Fire Fighting Equipment

- Select the correct type
  - Mount properly
  - Mark
  - Do not allow extinguishers to become coat racks or be blocked with storage
- Train employees how to use them
- Annual inspection



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## Review and Update

- No plan works if it is gathering dust
- Review your plan at least annually
- Make any needed revisions
- Mark review and revision dates
- Practice, Exercise or Test it at least annually



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## Summary

Research Previous Plans and  
Examples From Others

When possible, plug your plan into  
existing plans

Use as template for your plan

There is not a one-size-fits-all Plan

